

SEA FIRS.

BY ARTHUR DUMERGUE.

Strolling aimlessly in the beautiful public gardens of Bournemouth a few days ago, I came upon a young boy industriously netting the stream flowing through the gardens, and after watching him for a few minutes I went round to his side of the water. He showed me his jar full of treasures, and told how he often came there, as he lived close by, and how he had got newts, water beetles, whirligigs, spiders, &c., and how he had just captured a splendid specimen of a tiger beetle. We soon got quite friendly and eagerly examined each haul for, as he expressed it, "interesting little things." Well, we chatted and netted, and netted and chatted, and watched our specimens, and presently a neighbouring clock struck seven; I ought to have been some few miles away, and my young friend informed me he should have been in to tea an hour ago. So pleasantly had the two hours passed that neither of us had given time a thought. Before we parted we had arranged a little trip to Swanage, and next day I met him armed with his jars and nets, and we voyaged to the quaint old port, my little friend chatting incessantly about beetles, insects, fishes, pond life, and microscopes. On arriving we lost no time, but were soon scrambling along the rocks, filling our jars with spoils, and gathering what he called pretty looking seaweeds, but what I explained was not seaweed at all, but would appear on a more careful observation to resemble a little fir-tree growing fixed on oyster-shells and such things, and looking for all the world like a sea-plant. Scanning its structure a little more closely by the aid of a lens we observe that in place of leaves and flowers the branches bear hundreds of little cups set on either side. They are definite in shape, and not like a plant's belongings at all. For it is not a plant, but an animal masquerading in the likeness of a plant. If one is examined under the microscope you find that each little cup is the home of a living animal, simple

in structure, consisting of a tubular body, having a mouth with tentacles and feelers, used for the purpose of food catching. The mouth opens directly into the simple body, and the body in its turn opens into the branch on which it is borne. Both stem and branches are hollow, and thus communicate with all the units of the colony. Thus this seaweed-looking mass is in reality a compound colonial animal, numbering its members by the hundred. It is also a co-operative society, for the colony is nourished not by the efforts of one, but by the work of all its members. Each little animal captures food and digests it, and then delivers the nutriment to the general store or fund, which is always circulating through the hollow stem and branches of the colony. Each unit in turn draws its own supply of nourishment. There is perfect co-operation. No wrangling and quarrelling witnessed here. No question of precedence or rights in the sea-fir republic. Equality, Fraternity, and the currents of life with them roll onwards undisturbed by the passions which mar the pleasures of a higher existence. The reproductive buds are developed at certain seasons in great numbers, and constitute what are called capsules, and are often of a very beautiful shape. These are the cradles of the society, and within them are developed the little oval bodies representing the eggs of the animal, which, after being discharged, swim about for a time. Then each settles down, fixing itself to some suitable object, and we see growing one little member of the sea-fir state. By-and-by there begins a process of budding as truly as seen in any plant, the result being to produce other units like itself, and we behold reproduced the connected branched colony from which we started. This is the history of every sea-fir you may find. Arriving from an egg, developed in the egg capsule by a pre-existing colony, and growing to its vegetable-like form by imitating the ways of increase we see in every plant. This life history, and kindred subjects, we discussed on our return journey, closing one of those pleasant days that linger long in one's memory.